

4 August 2010
Reference: 0116794

Ms. Marilyn St. Fleur
RCRA Facility Manager
United States Environmental Protection Agency
Region 1
1 Congress Street, Suite 1100
Boston, Massachusetts 02114-2023



**Re: *Response to Comments Regarding the Quality Assurance Project
Plan for Ongoing Activities at the Former CEE
Associates/InteliData Facility
80 Pickett District Road
New Milford, CT CTD044121697***

Dear Ms. St. Fleur:

In correspondence dated July 15, 2010 the U.S. Environmental Protection Agency (EPA) provided comments related to the Quality Assurance Project Plan (QAPP) prepared by ERM Consulting & Engineering, Inc. (ERM) for the above-referenced site. ERM drafted this response, on behalf of CEE Associates (CEE), to address EPA's comments. Please note that the changes described herein have already been implemented, as appropriate.

For ease of reference, ERM has included EPA's comments in their entirety in ***bold italics***. The numbering system below has been preserved from EPA's July 15, 2010 correspondence.

1. Comment #1 O & M of Soil Vapor Extraction/Air Sparge System

The requested figures were submitted. What is unclear in the Figures 12 and 13 are the sampling locations. If samples are to be collected from SVE System the sampling locations need to be clearly identified.

Please note that Section 2.1 (Page 2-2) of the QAPP notes that all SVE points (plus the combined effluent) are to be used for soil vapor sampling. As these locations are clearly defined in the text, and their

locations provided on the figures, no additional markings were considered necessary.

2. Comment #5 Table 6 which deals with preservation of 1,4-dioxane groundwater samples.

According to ERM's Response, the action limit is 20 ug/L. In that case, 1,4-dioxane analysis can be included with the VOC analyses.

However, if the action limit is reduced to below 20 µg/L in the future, then the sample will need to be analyzed by Method 8260C which requires purging the sample at 80°C and collecting a separate sample for analysis. The 1,4-dioxane sample is not preserved with HCl because the 1,4-dioxane which is an ether can degrade at that purging temperature under acid conditions, thus biasing the data low.

Table 6 (copy attached) has been modified to note that, should the action limit for 1,4-dioxane drop beneath 20 µg/L, ERM will analyze for that compound using EPA Method 8260C, with no sample preservation with HCl.

3. Comment #6 Appendix F - ERM Standard Operating Procedures Low Flow Sampling Procedure.

According to ERM response they will use USEPA Region 1 Draft Calibration of Field Instruments (temperature, pH, dissolved oxygen, conductivity/specific conductance, oxidation/reduction potential [ORP], and turbidity), June 3, 1998 procedure as requested.

Since the review of the September 2006 Quality Assurance Project Plan the draft procedure has been updated in January 2010 (see attachment). Also the EPA Region 1's 1996 Low Flow Sampling procedure has been updated in January 2010 (see attachment). Note there are no major changes in the updates just clarifications and additional information added to improve the procedures. Please use the updated revision instead of the earlier revisions.

ERM will include the updated versions of these procedures in Appendix F.

4. Comment #8 which deals with well screens or open intervals greater than ten feet.

ERM states the following: "The data from geophysical studies indicate that very little preferential flow is present in the bedrock, suggesting no optimal "worst case" sampling interval is present. Continued sampling at the midpoint of the borehole or screen section will provide comparability with historical data." Since you stated that there is "no optimal sampling interval" to collect the samples, the well should be purged at least one screen/open interval volume before the samples are collected using the low-flow procedure. This will help ensure that water from the whole screen/open interval is reaching the pump intake before the sample is collected.

Section 4.2.2 has been modified (Page 4-5, Paragraph 3) to include this change. A copy of the revised Page 4-5 is included for EPA's review and inclusion in the final QAPP.

5. Comment #8 and MW-17

ERM states "MW-17 has been destroyed and is no longer included in the monitoring program." Table 6 which is attached to ERM's response shows MW-17 as part of the monitoring program. MW-17 should either be removed from the table or footnoted as being destroyed.

As noted on the revised Table 6 (attached), MW-17 has been removed. It has also been removed from (non-enumerated) tables in Section 2.0 and 4.0.

We hope this provides a satisfactory response to EPA's concerns.

Sincerely,

A handwritten signature in black ink, appearing to be 'R. Drake', with a long horizontal stroke extending to the right.

Robert Drake, P.E., Ph.D, L.E.P.
Senior Project Manager

A handwritten signature in black ink, appearing to be 'K.P. King', with a stylized 'K' and 'P'.

Kevin P. King, L.E.P.
Principal

Attachments

cc: Andrew Davis, Dewey & LeBoeuf LLP

ATTACHMENT A (SEE SECTIONS 2 AND 5)
TABLE 6 SAMPLING MATRIX AND
ANALYTICAL SAMPLING METHOD/SOP
REVISED 3 AUGUST 2010

Table 6: Sampling Matrix and Analytical Sampling Method/SOPs														
Sampling Location ^{1,2}	Location ID Number	Medium/ Matrix	Sampling Event	Analytical Parameter						QA/QC Samples		Screen Depth (feet)	Sample Depth (feet)	# Samples (include field duplicates/ replicates)
				VOCs, plus 1,4-dioxane (8260) ⁴	Total Cyanide	CT ETPH	Total Ba, Cr, Cu, Pb, Zn	Total PCBs	VOC (TO-14A)	Duplicates	MS/MSD			
1	ERM-6	Ground Water	SVE/AS Opt GWM	X								3.5-13.5	Middle of Water Column (if ≥ 4' from bottom of well) ³	4
	ERM-11			X						X		8.0-18.0		8
	ERM-13			X								5.5-15.5		4
	ERM-14			X								5.0-15.0		4
1	ERM-6	Ground Water	Post-Remedial/Compliance GWM	X	X	X	X					3.65-13.65		8
	ERM-11			X		X	X			X	X	8.0-18.0		24
	ERM-13			X	X		X	X		X		5.5-15.5		16
	ERM-14			X		X	X					5.0-15.0		8
2	MW-1	Ground Water	Post-Remedial/Compliance GWM	X								4.10-14.10		8
	MW-2			X	X		X					7.30-17.30		8
	MW-3			X								7.40-17.40		8
	ERM-1			X								4.80-14.80		8
	ERM-2			X	X		X					4.85-14.85		8
	ERM-3			X	X	X	X					4.45-14.45		8
	ERM-7			X		X	X	X				3.35-13.35		8
	ERM-9				X		X					5.0-25.0		8
	ERM-10				X		X					4.75-14.75		8
	ERM-16			X	X	X	X					8.0-11.0		8
	INJ-1			X		X	X	X				5.0-15.0		8

Table 6: Sampling Matrix and Analytical Sampling Method/SOPs														
Sampling Location ^{1,2}	Location ID Number	Medium/ Matrix	Sampling Event	Analytical Parameter						QA/QC Samples		Screen Depth (feet)	Sample Depth (feet)	# Samples (include field duplicates/ replicates)
				VOCs, plus 1,4-dioxane (8260) ⁴	Total Cyanide	CT ETPH	Total Ba, Cr, Cu, Pb, Zn	Total PCBs	VOC (TO-14A)	Duplicates	MS/MSD			
1	ERM-6	Ground Water	SVE/AS Opt GWM	X								3.5-13.5	Middle of Water Column (if ≥ 4' from bottom of well) ³	4
	ERM-11			X						X		8.0-18.0		8
	ERM-13			X								5.5-15.5		4
	ERM-14			X								5.0-15.0		4
1	ERM-6	Ground Water	Post-Remedial/Compliance GWM	X	X	X	X					3.65-13.65		8
	ERM-11			X		X	X			X	X	8.0-18.0		24
	ERM-13			X	X		X	X		X		5.5-15.5		16
	ERM-14			X		X	X					5.0-15.0		8
2	MW-1	Ground Water	Post-Remedial/Compliance GWM	X								4.10-14.10		8
	MW-2			X	X		X					7.30-17.30		8
	MW-3			X								7.40-17.40		8
	ERM-1			X								4.80-14.80		8
	ERM-2			X	X		X					4.85-14.85		8
	ERM-3			X	X	X	X					4.45-14.45		8
	ERM-7			X		X	X	X				3.35-13.35		8
	ERM-9				X		X					5.0-25.0		8
	ERM-10				X		X					4.75-14.75		8
	ERM-16			X	X	X	X					8.0-11.0		8
	INJ-1			X		X	X	X				5.0-15.0		8

Table 6: Sampling Matrix and Analytical Sampling Method/SOPs														
Sampling Location ^{1,2}	Location ID Number	Medium/ Matrix	Sampling Event	Analytical Parameter						QA/QC Samples		Screen Depth (feet)	Sample Depth (feet)	# Samples (include field duplicates/ replicates)
				VOCs, plus 1,4-dioxane (8260) ⁴	Total Cyanide	CT ETPH	Total Ba, Cr, Cu, Pb, Zn	Total PCBs	VOC (TO-14A)	Duplicates	MS/MSD			
2	BR-1	Ground Water	Post-Remedial/Compliance GWM	X			X					Open hole 100	Mid Point of Water Column	8
	BR-2			X			X					Open hole 120		8
	BR-3			X			X					Open hole 120		8
	BR-4			X			X					Open hole 120	Mid Point of Water Column	8
	BR-5			X			X					Open hole 120		8
	1			SVE-1	Soil Vapor	SVE/AS Opt GWM, and Post-Remedial/Compliance GWM						X		
SVE-2									X			3.0-7.0	32	
SVE-3									X			2.5-6.5	32	
SVE-4									X	X		3.0-7.0	64	
SVE-5									X			3.0-7.0	32	
SVE-6									X			3.0-7.0	32	
SVE-7									X			3.0-7.0	32	
Sampling SOP				SW-846 8260B			SW-846 9012A	CT ETPH	SW-846 6010B	SW-846 8082	TO-14A			
Sample Volume				80 ml	500 ml	1 L	500 ml	1 L	6 L					
Containers #, size, type				2, 40 ml, glass w/teflon	1, 500 ml, glass/plastic	1, 1L, amber glass w/teflon	1, 250 ml, glass/plastic	1, 1 L, glass/teflon	1, 6 L, silcosteel					
Preservation (chemical, temperature, light protected)				HCl to pH<2, Cool 4 °C, amber glass; No HCl for dioxane samples	NaOH to pH>12, Cool 4°C	HCl, Cool to 4°C, amber glass	HNO ₃ to pH<2, Cool 4°C	Cool 4°C, amber glass	None					
Maximum Holding Time To Preparation and Analysis				14 days	14 days	Extracted 14 days Analyzed 40 days	6 months	Extracted 14 days Analyzed 40 days	28 days					

¹Indicate critical field sampling locations “1”.

²Indicate background sampling locations “2”.

³If the water column is less than 4’ thick, the pump intake will be set a minimum of 2’ from the bottom of the well, as allowable, or at the least practicable depth if the depth to water is less than 2’ from the bottom of the well.

Table 6: Sampling Matrix and Analytical Sampling Method/SOPs														
Sampling Location ^{1,2}	Location ID Number	Medium/ Matrix	Sampling Event	Analytical Parameter						QA/QC Samples		Screen Depth (feet)	Sample Depth (feet)	# Samples (include field duplicates/ replicates)
				VOCs, plus 1,4-dioxane (8260) ⁴	Total Cyanide	CT ETPH	Total Ba, Cr, Cu, Pb, Zn	Total PCBs	VOC (TO-14A)	Duplicates	MS/MSD			
1	ERM-6	Ground Water	SVE/AS Opt GWM	X								3.5-13.5	Middle of Water Column (if ≥ 4' from bottom of well) ³	4
	ERM-11			X						X		8.0-18.0		8
	ERM-13			X								5.5-15.5		4
	ERM-14			X								5.0-15.0		4
1	ERM-6	Ground Water	Post-Remedial/Compliance GWM	X	X	X	X					3.65-13.65		8
	ERM-11			X		X	X			X	X	8.0-18.0		24
	ERM-13			X	X		X	X		X		5.5-15.5		16
	ERM-14			X		X	X					5.0-15.0		8
2	MW-1	Ground Water	Post-Remedial/Compliance GWM	X								4.10-14.10		8
	MW-2			X	X		X					7.30-17.30		8
	MW-3			X								7.40-17.40		8
	ERM-1			X								4.80-14.80		8
	ERM-2			X	X		X					4.85-14.85		8
	ERM-3			X	X	X	X					4.45-14.45		8
	ERM-7			X		X	X	X				3.35-13.35		8
	ERM-9				X		X					5.0-25.0		8
	ERM-10				X		X					4.75-14.75		8
	ERM-16			X	X	X	X					8.0-11.0		8
	INJ-1			X		X	X	X				5.0-15.0		8

ATTACHMENT B (SEE SECTION 4)
QAPP PAGE 4.5, PARAGRAPH 3
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3	ERM-2
1, 5, 9	ERM-3
5, 6	ERM-6
4, 8	ERM-7
10	ERM-9
10	ERM-10
1, 7	ERM-11
5, 8	ERM-13
9	ERM-14
7	ERM-16
4, 8	INJ-1
7	BR-1
7	BR-2
7	BR-3
7	BR-4
7	BR-5

The goal of low flow sampling is to purge a monitoring well at a similar or lower rate than recharge to the well, thereby obtaining samples that are representative of undisturbed groundwater. This technique involves pumping the groundwater at a low flow rate through a flow cell where water quality parameters are monitored until they stabilize, after which a groundwater sample is collected for laboratory analysis.

For wells with water depths less than 28 feet below grade, an adjustable-rate, low flow, peristaltic pump will be used for sampling. For wells with water depths greater than 28 feet, an adjustable-rate, low flow, submersible or bladder pump will be used for sample collection. In all cases, dedicated silicon and polyethylene tubing will be used.

In wells where screen lengths exceed five (5) feet, or are open bore hole (for bedrock), one full bore volume will be purged prior to collection of samples using low-flow methods.

In cases where submersible pumps are required, the pumps will be decontaminated in between sampling locations by pumping at least three volumes of low phosphate, laboratory grade detergent (i.e. Liquinox) and water mixture through the pump and scrubbing the pump exterior, followed by at least three volumes of distilled water. Where bladder pumps are used, the pump will be disassembled, the pump body will be thoroughly scrubbed with a mixture of low phosphate, laboratory grade detergent and water, and the individual bladders will be replaced. The pumps will be rinsed with a minimum of two volumes of distilled water prior to reassembly and use. Ground water samples will not be field filtered.

All ground water samples will be field preserved and shipped, under proper